Title (en)

METHODS FOR COUPLING OPTICAL FIBERS TO OPTICAL CHIPS WITH HIGH YIELD AND LOW-LOSS

Title (de)

VERFAHREN ZUR KOPPLUNG VON OPTISCHEN FASERN AN OPTISCHEN CHIPS MIT HOHER AUSBEUTE UND GERINGEM VERLUST

Title (fr)

PROCÉDÉS DE COUPLAGE DE FIBRES OPTIQUES À DES PUCES OPTIQUES À RENDEMENT ÉLEVÉ ET FAIBLE PERTE

Publication

EP 3571538 A1 20191127 (EN)

Application

EP 18741246 A 20180117

Priority

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- US 2018014096 W 20180117

Abstract (en)

[origin: WO2018136552A1] An optical fiber ribbon cable is formed using thermally expandable core (TEC) fibers. Expanded optical cores are formed in sections of TEC fibers, so that each section of TEC fiber comprises a first region having an unexpanded core, a second region having an expanded core, and a tapered region between the first region and the second region. The respective sections are cleaved to length and formed into a ribbon. A hybrid optical fiber ribbon cable can be made by fusing single mode optical fibers of a single mode fiber ribbon cable with TEC fibers of a TEC fiber ribbon cable using a laser. The laser is also used to form tapered core regions in the TEC fibers to reduce coupling losses between the TEC fibers and the single mode fibers.

IPC 8 full level

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CPC (source: EP US)

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